BUREAU OF LAND MANAGEMENT ROSWELL FIELD OFFICE
ENVIRONMENTAL ASSESSMENT # 510-2007-0013
10/13/06 Element Checklist and Table 3.0 – Affected Environment and Basis for Determination No Further Analysis

Resources RCEC,Inc NM114124	Not Present on Site	No Impacts	May Be Impacts*	Mitigation Included	BLM Reviewer Irene M. Gonzales	Date
CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT					*Must address in document	
Air Quality			X		Hydrologist	
Floodplains	X				/s/ Michael McGee	11/3/06
Water Quality - Surface/Ground		X	X	X	Geologist /s/ John S. Simitz Hydrologist	10/26/06
Cultural Resources			X	X	Archaeologist	
Native American Religious Concerns		X			Pat Flanary 07-R-008-A	01-11-07
Environmental Justice		X			Sur. Prot. Spec. Richard G. Hill	
Areas of Critical Environmental Concern	X				/s/ J H Parman Plan & Env. Coord.	10/31/06
Farmlands, Prime or Unique	X				Realty Irene M. Gonzales	11/14/06
Invasive, Non-native Species			X	X	Range Mgmt. Spec. H. Miller	12/13/2006
Wastes, Hazardous or Solid	X				Sur. Prot. Spec. Richard G. Hill	
Threatened or Endangered Species	X				Biologist	
Wetlands/Riparian Zones	X				Mwlvin Moe	10/26/06
Wild and Scenic Rivers	X				Outdoor Rec. Plnr.	
Wilderness	X				Paul Happel	10/31/06
NON-CRITICAL ELEMENTS						
General Topography/Surface Geology		X			Sur .Prot. Spec. Richard G. Hill	
Mineral Resources		X			Pet Engr/Geo/SPS /s/John S. Simitz	10/26/06
Paleontology		X			Archaeology Pat Flanary	11/29/06
Soil			X	X	Hydrologist	
Watershed/Hydrology			X	X	/s/ Michael McGee	11/3/06
Vegetation			X	X	J Spain.	10/25/06
Livestock Grazing			X	X	Range Mgmt . Spec	
Special Status Species			X	X	Biologist	
Wildlife			X		Melvin Moe	10/26/06
Recreation		X			Outdoor Rec. Plnr.	
Visual Resources			X	X	Paul Happel	10/31/06
Cave/Karst	X					
Public Health and Safety		X			Sur. Prot. Spec. Richard G. Hill	

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BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE

ENVIRONMENTAL ASSESSMENT # 510-2007-0013 FOR THE HIGHWAY U.S. 70 POWERLINE EXTENSION PROJECT

1.0 Introduction

The Roosevelt County Electrical Cooperative, Incorporated (RCEC) has filed an application for a Right-Of-Way (ROW) to build a powerline across 4.67 miles of Bureau of Land Management (BLM) land. The project would begin in the SE 1/4 of the NW1/4 of Section 3, Township 7 South, Range 29 East and terminate in the SW1/4 of the NW1/4 of Section 27, Township 5 South, Range 30 East.

This site-specific analysis tiers into and incorporates by reference the information and analysis contained in the Roswell Resource Area Proposed Resource Management Plan Final Environmental Impact Statement (PRMP/FEIS). This document is available for review at the Roswell Office. This project EA addresses site-specific resources and/or impacts that are not specifically covered within the PMP/FEIS, as required by the National Environmental Policy Act of 1969 (NEPA), as amended (Public Law 91-90, 42 U.S.C. 4321 et seq.).

1.1 Purpose and Need

The purpose for the proposal is to replace 13.48 miles of existing powerline along the north side of U.S. Highway 70 (U.S. 70) in Roosevelt and Chaves Counties, New Mexico (Appendix A, Map 1). 4.67 miles of this powerline are located on (BLM) land. The existing distribution line was installed in the 1960s and has since become dilapidated. The current situation poses a risk of transmission failure, and elevates the potential for an accidental fire ignited by a broken line. No documentation or verification of the ROW for the existing line is available this time. Prior to removal of the existing line from service, the new line would be built 15 feet to the north so RCEC can keep existing customers energized, as no alternate energy feeds exist. An approved Right-Of-Way Permit issued by the BLM, would authorize the applicant to extend the powerline across the BLM land located within the 13.48 mile project corridor.

1.2 Conformance with Applicable Land Use Plan and Other Environmental Assessments

Pursuant to 40 Code of Federal Regulations (CFR) 1508.28 and 1502.21, this site-specific EA tiers to and incorporates by reference the information and analysis contained in the Roswell Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS, BLM [January 1997]), which was approved as the Final Resource Management Plan for the Roswell Field Office (RFO) of the BLM by the Record of Decision (ROD) signed October 10, 1997. The PRMP/FEIS and ROD are available for review at the Roswell Field Office, Roswell, New Mexico. This EA addresses the resources and impacts on a site-specific basis as required by the National Environmental Policy Act (NEPA) of 1969, as amended (Public Law 91-90, 42 USC 4321 et seq.). The proposed project would not be in conflict with any State, local, or county plans.

1.3 Federal, State or Local Permits, Licenses or Other Consultation Requirements

Under Section 402 of the Clean Water Act (as amended), the U.S. Environmental Protection Agency (EPA), was directed to develop a phased approach to regulate storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. Industrial activities disturbing land may require permit coverage through a NPDES storm water discharge. Depending on the acreage disturbed, either a Phase I industrial activity (5 or more acres disturbance) or a Phase II small construction activities (between 1 and 5 acres disturbance) permit may be required. Additionally, an U.S. Army Corps of Engineers Section 404 permit for the discharge of dredge and fill materials may also be required. Additionally, a New Mexico Surface Water Quality Bureau 401 certification may also be required under a U.S. Army Corps of Engineers Section 404 permit. Operators are required to obtain all necessary permits and approvals prior to any disturbance activities.

Roswell Field Office staff reviewed the proposed action and determined it would be in compliance with threatened and endangered species management guidelines outlined in the 1997 Biological Assessment (Cons. #2-22-96-F-102). No further consultation with the U.S. Fish and Wildlife Service is required.

Compliance with Section 106 responsibilities of the National Historic Preservation Act are adhered to by following the BLM – New Mexico State Historic Preservation Officer protocol agreement, which is authorized by the National Programmatic Agreement between the *BLM*, the *Advisory Council on Historic Preservation*, and the *National Conference of State Historic Preservation Officers*, and other applicable BLM handbooks.

2.0 Alternatives Including the Proposed Action

2.1 Alternative A – No Action Alternative

The BLM NEPA Handbook (H-1790-1) states that for EAs on externally initiated proposed actions, the No Action Alternative generally means that the proposed activity will not take place. This option is provided in 43 CFR 3162.3-1 (h) (2). This alternative would deny the approval of the proposed application, and the current situation would remain. The existing powerline that has become dilapidated would further degrade. The risk of fires would be elevated due to the increased potential for a broken line. Replacement of the powerline at a future date would be inevitable.

By Federal law, the government must abide by the terms, conditions, and provisions agreed to when the Right-Of-Way permit was issued. In the Council of Environmental Quality regulations (40 CFR 1500.3), it states that parts 1500-1508 of this title provide regulations applicable to and binding on all Federal agencies for implementing the procedural provisions of the National Environmental Policy Act of 1969…" except where compliance would be inconsistent with other statutory requirements".

The No Action Alternative is presented for baseline analysis of resource impacts.

2.2 Alternative B – Proposed Action

RCEC submitted an application on September 15 of 2006 for a Right-Of-Way across BLM land on the north side of U.S. 70; Right-Of-Way number NM-114124. The purpose of this Right-Of-Way is to enable replacement of an existing powerline that has become dilapidated (Figure 1).

The line is energized at a substation in Elida, NM, and extends along U.S. 70 for approximately 34.8 miles. The proposed segment for replacement spans 13.48 miles, 4.67 miles of which are located on BLM land. Removal of the existing line would occur after construction of the proposed line is complete, to allow sustained energy transmission to existing RCEC customers.

The proposed construction will begin at the town of Kenna, NM at milepost (MP) 388 and extend 13.48 miles, ending near MP 374 (Figure 2). The ROW will be 30 feet wide and located XXX feet from the edge of U.S. 70. The new line will be overhead, three-phase, 24.9/14.4kV, high-neutral construction built on 40 foot poles with 10 foot crossarms. The poles will be spaced approximately 300 feet apart.

Construction could take place at any time of the year, although the anticipated work period would extend from March 2007 through May 2007. Daily work activities would be conducted between 9:00 A.M. and 8:00 P.M. No work would take place between 3:00 A.M. and 9:00 A.M, as stipulated in the Roswell Field Office (RFO) and Carlsbad Field Office (CFO) Interim Management Guidelines for the Shinnery Oak Sand Dune Habitat Complex (Department of Interior 2004). RCEC recognizes the importance of protecting special status species such as the lesser prairie chicken (*Tympanuchus pallidicinctus*) and sand dune lizard (*Sceloporus arenicolus*), and has therefore agreed to restrict work activities to periods specified in the Interim Guidelines.

The construction process would proceed as follows. First, the staking process would begin in which the locations for all of the poles are identified. This would take approximately two weeks; weather permitting. Next, the crew would begin laying-out materials. Semi-trucks would be utilized to drop-off poles at designated locations. The construction crew would space the poles approximately 300 feet apart for framing. Once framed, the poles would be set using a pressure digger with an auger that is mounted on a 6x6 truck chassis. This same vehicle would also set poles at the time the holes are dug. A separate wire truck would string wire along the pole line once the poles are set. The wire would be placed on the pole's crossarms and then "sagged" in. This process is usually done in one-half to one-mile increments. The process of sagging would utilize approximately three bucket trucks and three to four service trucks. The service trucks would be used to get the climbers from one pole to another to sag the wire and to tie in the phases. The amount of time spent at each structure would vary depending on the complexity of the pole construction (i.e. junctions and road crossings require more time and material). After the completion of the new line, removal of the old line running parallel to the newly constructed line would commence. The same process would be used to remove the old line as the construction of the new line except in the reverse order. The proposed action would be constructed in accordance with the Roswell Field Office Standard Stipulations for Overhead Power lines (Appendix B).

Vegetation within the ROW would be driven on during the proposed construction. No vegetation cutting or removal would occur. Noise will be limited to 1 – 3 trucks operating at a time during construction at any given pole installation site.

Figure 1. View of power line on the north side of U.S. Highway 70 between Kenna and Boaz, NM in Chaves County.

Figure 2. View of Kenna, NM, where construction of the proposed power line would begin.

LEGAL LAND DESCRIPTION FOR ENTIRE PROPOSED ACTIONS:

T. 5 S., R. 30 E., NMPM, Roosevelt County
Section 27: S1/2NE1/4, SW1/4, NW1/4SE1/4;
Section 28: SE1/4SE1/4;
Section 32: SE1/4SW1/4, NE1/4SE1/4, S1/2SE1/4;
Section 33: N1/2NE1/4, SW1/4NE1/4, S1/2NW1/4, NW1/4SW1/4.

T. 6 S. R 29 E., NMPM, Chaves County
Section 25: S1/2SE1/4;
(Public Land Portion of Section 25 is S/12SE1/4)
Section 35: SE1/4NE1/4, NE1/4SW1/4, S1/2SW1/4, N1/2SE1/4;
Section 36: NW1/4NE1/4, NW1/4.

T. 6 S., R. 30 E., NMPM, Chaves County
Section 11: SE1/4SW1/4, NE1/4SE1/4, NW1/4SE1/4, SW1/4SE1/4;
(Public Land Portion of Section 11 is SE1/4SW1/4, NE1/4SE1/4, SW1/4SE1/4)
Section 12: N1/2NE1/4, NE1/4NW1/4, S1/2NW1/4, NW1/4SW1/4;
(Public Land Portion of Section 12 is S1/2NW1/4, NW1/4SW1/4)
Section 14: N1/2NW1/4;
(Public Land Portion of Section 14 is N1/2NW1/4)
Section 15: NE1/4NE1/4, S1/2NE1/4, N1/2SW, SW1/4SW;
(Public Land Portion of Section 15 is NE1/4NE1/4, S1/2NE1/4, N1/2SW, SW1/4SW)
Section 16: SE1/4SE1/4;
Section 20: SE1/4NE1/4, S1/2SW1/4, N1/2SE1/4;
(Public Land Portion of Section 20 is SE1/4SW1/4)
Section 21: NW1/4NE1/4, NE1/4NW1/4, S1/2NE1/4;
(Public Land Portion of Section 21 is NE1/4NE1/4, NE1/4NW1/4, S1/2NW1/4)
Section 29: NW1/4NW1/4;
(Public Land Portion of Section 29 is NW1/4NW1/4)
Section 30: NE1/4, N1/2SW1/4;
(Public Land Portion of Section 30 is SE1/4NE1/4, N1/2SW1/4)

T. 6 S., R 31 E., NMPM, Chaves County
Section 6: Lots 3, 4.

T. 7 S., R. 29 E., NMPM, Roosevelt County
Section 2: Lot 4;
Section 3: Lots 1, 2 and SW1/4NE1/4.

PUBLIC LANDS
T. 6 S., R. 29 E., NMPM, Chaves County
Section 25: S1/2SE1/4;
T. 6 S., R., 30 E., NMPM, Chaves County
Section 11: SE1/4SW1/4, NE1/4SE1/4, SW1/4SE1/4;
Section 12: S1/2NW1/4, NW1/4SW1/4;
Section 14: N1/2NW1/4;
Section 15: NE1/4NE1/4, S1/2NE1/4, N1/2SW, SW1/4SW;
Section 20: SE1/4SW1/4;
Section 21: /4NE1/4, NE1/4NW1/4, S1/2NW1/4;
Section 29: NW1/4NW1/4;
Section 30: SE1/4NE1/4, N1/2SW1/4.

2.3 Alternative C – Alternate Installation Period

Under this alternative, all aspects of the construction process would be identical to the proposed action, with the exception of the time period. Construction would take place completely outside of the period of March 15 to June 15, 2007, the lesser prairie chicken breeding season. Work activities could take place at any time during the day.

Under this alternative, the new powerline would be installed from approximately June 16 to September 16 of 2007. This would result in continued degradation of the existing line. The risk of transmission failure would continue during that period. The potential for an accidental fire ignited by a broken line during the dry season would also remain. Moreover, long-term scheduling conflicts for alternate RCEC projects would arise, as other powerline projects are expected.

3.0 Description of Affected Environment

This section describes the environment that would be affected by implementation of the alternatives described in Section 2. Aspects of the affected environment described in this section focus on the relevant major resources or issues. Certain critical environmental components require analysis under BLM policy. These items are included below in Table 3.0, found as the first page of this document. Following the table, only the aspects of the affected environment that are potentially impacted are described.

The following elements are not present or are not affected by the Proposed Action or Alternatives in this assessment: Areas of Critical Environmental Concern, Prime or Unique Farmlands, Wild and Scenic Rivers, Wilderness or Wilderness Study Areas, Floodplain, Wild Horses and Burros, Native American Religious Concerns, Mineral Resources, Environmental Justice, Public Health and Safety, Cave/Karst Resources, Paleontological Resources, Wetlands/ Riparian Zones and Wastes - Hazardous or Solids.

General Setting

The project site lies within the eastern portion of the Pecos River Valley. It is located between the towns of Kenna and Boaz, NM, approximately 56 miles from Roswell NM along U.S. 70. It is situated within the Mescalero Sands at the western edge of the Llano Estacado geologic formation. The topography of the project area is relatively flat with few, gently rolling hills. Land ownership consists of private, State Trust Land, and BLM land (Appendix A. Maps 2-4).

The elevation is approximately 4,100 feet above sea level at the south end of the project area near Boaz, NM and gradually increases to 4,430 feet at the town of Kenna, NM. Annual rainfall averages between 10 and 17 inches. Mean annual temperatures range from 57 to 72 degrees farenheight. Drainage within the project area is generally in a southwesterly direction. Runoff

within these drainages ultimately flows into the Pecos River approximately 20 miles to the southwest.

The powerline corridor passes through the Mescalero Sands and is comprised of the Grassland, and Shinnery Oak-Dune Communities (Figures 3 and 4). These two communities harbor a wide variety of plant and animal species. Common plant species include shinnery oak (*Quercus havardii*), sand sage (*Artemisia filifolia*), honey mesquite (Prosopis glandulosa), blue grama (*Bouteloua gracilis*), purple three-awn (*Aristaida purpurea*), little bluestem (*Schizachyrium scoparium*), and mesa dropseed (*Sporobolus flexuosus*).

The Shinnery Oak-Dune Community is regionally unique, and supports the endemic sand dune lizard, which is specifically adapted to the large dunal features associated with this type. Other wildlife species found within the general project include the scaled quail (*Callipepla squamata*), red-tailed hawk (*Buteo jamaicensis*), lesser prairie chicken, turkey vulture (*Cathartes aura*), badger (*Meles meles*) coyote (*Canis latrans*), and pronghorn antelope (*Antilocarpa americana*).

Figure 3. View of the Shinnery Oak-Dune Community along U.S. 70 within the proposed project corridor.

Figure 4. View of the Grassland Community which represents small portions of BLM land within the proposed project corridor.

3.1 Air Quality

The area of the Proposed Action is considered a Class II air quality area. A Class II area allows moderate amounts air quality degradation. The primary sources of air pollution are dust from blowing wind on disturbed or exposed soil and exhaust emissions from motorized equipment.

3.2 Invasive, Non-native Species

The proposed project area contains a stand of salt cedar (*Tamarix* spp.) within Kenna Draw near MP 386, approximately 2 miles south of Kenna, NM. No other invasive or non-native species are known to occur within the project area. Some scattered populations of musk thistle (*Carduus nutans*) have been noted south of the proposed project area.

3.3 Threatened or Endangered Species

Under Section 7 of the Endangered Species Act of 1973 (as amended), the BLM is required to consult with the U.S. Fish and Wildlife Service on any proposed action which may affect Federal listed threatened or endangered species or species proposed for listing. RFO reviewed and determined the proposed action is in compliance with listed species management guidelines outlined in the 1997 Biological Assessment (Cons. #2-22-96-F-102). No further consultation with the Service is required.

No threatened or endangered species are known in the project area.

3.4 Soil

The Soil Surveys of Chaves County, New Mexico, Northern Part, and Roosevelt County, New Mexico (USDA Soil Conservation Service 2006) were used to describe and analyze impacts to soils from the proposed action. The soil map units represented in the project area are:

(Faskin fine sand, 0 to 2 percent slopes (FaA): Comprises approximately 20 percent of the project area. Runoff of the unit soil is low and the hazard of water erosion is very low. The hazard of soil blowing is slight.
(Faskin-Malstrom association (FMA): Comprises approximately 22 percent of the project area. Runoff of the unit soil is very low and the hazard of water erosion is very low. The hazard of soil blowing is slight.
(Roswell-Jalmar fine sands (RPD): Comprises approximately 20 percent of the project area. Runoff of the unit soil is very low and the hazard of water erosion is very low. The hazard of soil blowing is slight.
(Berthoud sandy loam 2 to 9 percent slopes (Ba): Comprises approximately 8 percent of the project area. Runoff of the unit soil is medium and the hazard of water erosion is very low. The hazard of soil blowing is moderate.
(Brownfield fine sand (Be): Comprises approximately 8 percent of the project area. Runoff of the unit soil is very low and the hazard of water erosion is very low. The hazard of soil blowing is slight.
(Jalmar-Roswell-Pyote association (JRC): Comprises approximately 7 percent of the project area. Runoff of the unit soil is low and the hazard of water erosion is very low. The hazard of soil blowing is slight.
(Redona-Canez association (RHA): Comprises approximately 7 percent of the project area. Runoff of the unit soil is low and the hazard of water erosion is very low. The hazard of soil blowing is moderate.
(Bippus and Spur soil (Bb): Comprises approximately 6 percent of the project area. Runoff of the unit soil is negligible and the hazard of water erosion is low. The hazard of soil blowing is moderate to high.
(Mansker and Portales loams, 1-3 percent slopes (Md): Comprises approximately 2 percent of the project area. Runoff of the unit soil is low and the hazard of water erosion is moderate. The hazard of soil blowing is moderate.

The dominant soil within the project area is loamy fine sand and fine sand. Overall runoff is low and water erosion potential is very low throughout the majority of the project area. The overall hazard of soil blowing within these areas is slight, with the exception of Bippus and Spur soil where the hazard is high.

3.5 Water Quality – Surface/Ground

Surface water within the area is affected by geology, precipitation, and water erosion. Factors that currently affect surface water resources include livestock grazing management, oil and gas development, recreational use and brush control treatments. No perennial surface water is found on public land in the area. Ephemeral surface water is primarily drained into depressions along the edge of U.S. 70. No playas, alkalai lakes or stock tanks are present within the proposed project area.

Groundwater within the area is affected by geology and precipitation. Factors that can affect groundwater resources in the area include livestock grazing management, oil and gas development, groundwater pumping, and possible impacts from brush control treatments. Most of the groundwater in the area is used for industrial, rural, domestic and livestock purposes.

3.6 Watershed – Hydrology

The watershed and hydrology in the area is affected by land and water use practices. The degree to which hydrologic processes are affected by land and water use depends on the location, extent, timing and the type of activity. Factors that currently cause short-lived alterations to the hydrologic regime in the area include livestock grazing management, oil and gas developments, and powerline installation.

3.7 Vegetation

The project area is comprised of the Grassland Community and the Shinnery Oak-Dune Community (BLM RFO Resource Management Plan 1997). The Grassland Community dominates the south end of the project area near the town of Boaz, NM, and in small portions in the northern portion near Kenna, NM where loamy soils exist. The Shinnery Oak-Dune Community is found over the northern three-fourths of the project corridor in sandier soils. Dominant species within the grassland include blue grama (*Bouteloua gracilis*), purple three-awn (*Aristaida purpurea*), broom snakeweed (*Gutierrezia sarothrae*), cholla (*Opuntia imbricata*), and green rabbitbrush (*Chrysothamnus viscidiflorus*), and honey mesquite (*Prosopis glandulosa*). Dominant species within the Shinnery Oak-Dune Community include shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*), with bunchgrasses such as little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), mesa dropseed (*Sporobolus flexuosus*), and alkalai sacaton (*Sporabolus airiodies*). No wetlands or riparian areas were identified within the project area.

3.8 Livestock Grazing

The area has been grazed by a combination of sheep and cattle since the mid-1800s. Two allotments overlap the project area; these are numbers 65012 and 65013. Cattle are the current stock type on these grazing allotments.

3.9 Wildlife

Wildlife in the vicinity of the project area includes various small mammals, diverse avifauna, reptiles and big game species (Brown and Lowe 1980). Species observed during field visits include the mourning dove (*Zenaida macroura*), scaled quail, red-tailed hawk, American Kestral, (*Falco sparvarius*), pronghorn antelope, turkey vulture, and the western kingbird (*Tyrannus verticalis*). A detailed description of the wildlife likely to inhabit the project area is listed below.

<u>Birds</u>
Bird species that frequent the aforementioned habitat types within the project area include scaled quail, mourning doves, loggerhead shrike (*Lanius ludovicianus*), norther flicker (*Colaptes auratus*), western meadowlark (*Sturnella neglecta*), horned lark (*Eremophila alpestris*), chihuahuan raven (*Corvus cryptoleucus*), and the roadrunner (*Geococcyx californianus*). The most charismatic of the bird species include the lesser prairie chicken.

<u>Raptors</u>
Raptors that could be found within the project area include ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), red-tailed hawk *(Buteo jamacainsis),* and the American kestrel *(Falco sparverius).*

<u>Mammals</u>
Many species of mammalian carnivores occur within the habitat types along the project corridor (Brown and Lowe 1980). These include the striped skunk (*Mephitis mephitis*), coyote, badger,

bobcat (*Lynx rufus*), and gray fox (*Urocyon cinereoargenteus*). Small mammals that serve as the prey base in the project area include the deer mouse (*Peromyscus maniculatus*), pocket mouse (*Perognathus sp*.), ground squirrel (*Spermophilus sp*.), kangaroo rat (*Dipodomys ordii*), white-throated woodrat (*Neotoma albigula*), desert cottontail (*Sylvilagus audubonii*), and the black-tailed jackrabbit (*Lepus californicus*).

Reptiles and Amphibians

A diverse assemblage of reptiles and amphibians is present within the project area (Degenhardt et al. 1996). These include species such as the sand dune lizard, southern prairie lizard (*Sceloporus undulatus consobrinus*), lesser earless lizard (*Holbrookia maculata*), side-blotched lizard (*Uta stansburiana*), tree lizard (*Urosaurus ornatus*), various *Eumeces* spp, the western rattlesnake (*Crotalus viridis*), western diamondback (*Crotalus atrox*), coachwhip (*Masticophis flagellum*), western box turtle (*Terrapene ornata*), and spadefoot toads (*Spea multiplicata*).

Fish

No fish occur within the project area.

3.10 Special Status Species

In accordance with BLM Manual 6840, BLM manages certain sensitive species not federally listed as threatened or endangered in order to prevent or reduce the need to list them as threatened or endangered in the future. Included in this category are State listed endangered species and Federal candidate species which receive no special protections under the Endangered Species Act. Special status species with potential to occur in the proposed project area are listed in Table 3.10.1.

Table 3.10.1 Habitat descriptions and Presence of BLM Roswell Field Office Special Status Species.

Common Name (scientific name)	Status	Habitat	Presence*
Sand dune lizard (*Sceloporus arenicolus*)	Candidate	Shinnery-Oak Dune Community (between dunal complexes; sand dune blowouts)	NS
Lesser prairie chicken (*Tympanuchus pallidicinctus*)	Candidate	Shinnery-Oak Dune Community	K

Presence*

K Known, documented observation within project area.
S Habitat suitable and species suspected to occur within the project area.
NS Habitat suitable but species is not suspected to occur within the project area.
NP Habitat not present and species unlikely to occur within the project area.

Sand dune lizard

The sand dune lizard is found throughout southeastern New Mexico and west Texas (Degenhardt et al. 1996). Specifically, this lizard is restricted to the vicinity of active and semi-stabilized sand dunes within the Mescalero Sands to an elevation of approximately 4,000 ft. This habitat is described as the Shinnery Oak-Dune Community (BLM RFO Resource Management Plan 1997). Scatered stands of shinnery oak and sand sage dominate this habitat type. The species is found almost exclusively among and between dunal complexes with large depressions devoid of vegetation (e.g. blowouts) (NM LPC/ SDL Working Group 2005).

Sand dune lizards lay two clutches of eggs, one in late June and another in late July to early August. Hatchlings emerge between the end of July and the end of September. The lizards are active during the day. Hibernation begins in September and extends to March or April. This species feeds upon small beetles and their larvae, grasshoppers, crickets, spiders, ants and their pupae.

The sand dune lizard is currently listed as a Federal candidate species by the U.S. Fish and Wildlife Service. The two major threats faced by the lizard include removal of shinnery oak by herbicides and disturbance to dune areas by roads from activities such as oil and gas development.

The specific habitat features this species normally utilizes (e.g. dunal complexes and blowouts devoid of vegetation) are not present within the narrow project corridor. Some very small dunal features are present adjacent to the project area, although no blowouts of any size exist in the vicinity. Further, no individuals were located within the project area during surveys.

Lesser prairie chicken

The lesser prairie chicken is found within New Mexico, West Texas, Oklahoma, and Colorado. In New Mexico, it is found within in the highest densities within the Shinnery Oak-Dune Community type, as described above, but has been found within other habitat types, including the Grassland Community with loamy soils, cultivated pastures, and fields converted under the Conservation Reserve Program.

This bird breeds mostly in May, and lays a clutch of 8 – 15 eggs within a depression at the base of bunch grasses or shrubs. Young hatch in June and July. These birds are most active during dawn and dusk, and less so during the day. Average home range size has been calculated at 102.3 acres (Taylor 1980). Lesser prairie chickens feed on acorns, oak galls, grasshoppers and other insects (Peterson and Boyd 1998).

The lesser prairie chicken is currently listed as a Federal candidate species by the U.S. Fish and Wildlife Service. Major threats to the persistence of this species include degradation of seasonal habitat, habitat loss and fragmentation, and direct disturbance and mortality (NM LPC/ SDL Working Group 2005).

3.11 Visual Resources

Visual Resource Management (VRM) on public land is conducted in accordance with BLM Handbook 8410 and BLM Manual 8411. The VRM system involves the assessment of an area's scenic quality, sensitivity to visual change, and distance zones based on visibility of an area from observation points. All BLM land in the proposed project area has been mapped as VRM Class III. No long-term net changes to Visual Resources are expected from the proposed action.

3.12 Cultural Resources

A Class III survey was completed for the project area during the summer of 2006; locations of the respective sites were documented and mapped (Burleson 2006). During the course of the survey, six previously recorded cultural resource sites were encountered and are summarized below. All findings were submitted to the State Historic Preservation Officer (SHPO) for review.

LA 127498 (Category 1)

Site Type: Prehistoric artifact scatter
No. of Components: 1
Cultural Affiliation: Jornada Mogollon
Land Status: Private
Elevation: 4178 feet above mean sea level

LA 127498 is a single component (Jornada Mogollon) site based on the presence of diagnostic ceramics and prehistoric flaked lithic debitage. The site was originally recorded in 1999 by Eastern New Mexico University and updated in 2000 by SWCA, Inc. The site is characterized by a generally flat plain/low coppice dune formation with dense shinnery oak vegetation. The original recording also noted dense vegetation across the site boundary.

The site remains largely as it was defined in the 2000 update by SWCA, Inc., although dense vegetation has limited surface visibility. The present site update concurs with the assessment that the site is not eligible for inclusion to the National Register of Historic Places as it is not likely to provide significant chronological, settlement, and subsistence data towards our present understanding of the prehistoric period of the region.

LA 127508 (Category 2)

Site Type: Historic feature and artifact scatters
No. of Components: 2
Cultural Affiliation: Prehistoric and Historic
Land Status: Private
Elevation: 4380 feet above mean sea level

LA 127508 is a multi-component site including both prehistoric and historic materials. The site was originally recorded in 1999 by Eastern New Mexico University. The prehistoric component was previously defined by two flaked lithic artifacts (local quartizite) and likely should not have been designated as a component. The historic component is representative of the late US Territorial (A.D. 1846-1912) to early Statehood to WWII (A.D. 1920-1945) period of occupation. The component is defined by historic artifacts and a dugout feature. The site is characterized by a generally flat plain with dense vegetation. The original recording also noted moderate to dense vegetation across the site boundary.

The site remains largely as it was originally defined in 1999, although dense vegetation has limited surface visibility and re-identification of portions of the site assemblage. The site was originally assessed as eligible for inclusion to the National Register of Historic Places under criterion D, information potential (HPD Log 59996). The present site update concurs with the assessment that the site is eligible for inclusion to the National Register of Historic Places as it is likely to provide significant chronological, settlement, and subsistence data towards our present understanding of the historic period of the region.

LA 127509 (Category 2)

Site Type: Historic features and prehistoric/historic artifact scatters
No. of Components: 2
Cultural Affiliation: Prehistoric and Historic
Land Status: Private
Elevation: 4380 feet above mean sea level

LA 127509 is a multi-component site including both prehistoric and historic materials. The site was originally recorded in 1999 by Eastern New Mexico University. The prehistoric component was defined by flaked lithic artifacts and a dispersed scatter of burned caliche. The historic component is representative of the late US Territorial (A.D. 1846-1912) to early Statehood to WWII (A.D. 1920-1945) period of occupation. The component is defined by historic artifacts and two dugout features. The present recording noted heavy ground vegetation that may be obscuring portions of the site materials. The original recording noted moderate amounts of ground cover across the site boundary.

The site remains largely as it was originally defined in 1999, although dense vegetation has limited surface visibility and re-identification of portions of the site assemblage. The site was originally assessed as eligible for inclusion to the National Register of Historic Places under criterion D, information potential (HPD Log 59996). The present site update concurs with the assessment that the site is eligible for inclusion to the National Register of Historic Places as it is likely to provide significant chronological, settlement, and subsistence data towards our present understanding of the prehistoric and historic periods of the region.

LA 127510 (Category 1)

Site Type: Artifact scatter
No. of Components: 1
Cultural Affiliation: Prehistoric
Land Status: Private
Elevation: 4440 feet above mean sea level

LA 127510 is a small prehistoric artifact scatter. The site was originally recorded in 1999 by Eastern New Mexico University. The site is potentially related to the Jornada Mogollon period (A.D. 1100-`1400), Late Mesita Negra to Late McKenzie phase based on the presence of a ceramic sherd. The site is situated on a generally flat plain south of a low rise. The site bounded along the southeastern edge by the highway right-of-way fence, and to the northwest by a dirt two-track and electric transmission line. Ground cover at the site consists of moderate to heavy grass and shinnery oak. The original recording also noted moderate to dense vegetation across the site boundary. The site was originally documented as being grazed and disturbed.

The site remains largely as it was originally defined in 1999, although dense vegetation has limited surface visibility and re-identification of portions of the site assemblage. The site was originally assessed as not eligible for inclusion to the National Register of Historic Places (HPD Log 59996). The present site update concurs with the assessment that the site is not eligible for inclusion to the National Register of Historic Places.

LA 127511 (Category 1)

Site Type: Feature and artifact scatters
No. of Components: 2
Cultural Affiliation: Prehistoric and Historic
Land Status: Private
Elevation: 4460 feet above mean sea level

LA 127511 is a multi-component site including both prehistoric and historic materials. The site was originally recorded in 1999 by Eastern New Mexico University. The prehistoric component is comprised exclusively of flaked lithic materials. The historic artifact scatter and concrete foundation feature appear related to the Statehood to WWII (A.D. 1912-1945). The construction of the highway appears to have impacted the southeastern portion of the site, as well as a buried phone line and the existing power line that run along the southeast portion of the site. The original recording also noted moderate to dense vegetation across the site boundary.

The site remains largely as it was originally defined in 1999, although dense vegetation has limited surface visibility and re-identification of portions of the site assemblage. The site was originally assessed as "not sure" in terms of its eligibility to the National Register of Historic Places (HPD Log 59996). The present site update recommends the site as not eligible for inclusion to the National Register of Historic Places due to lack of soil depth that may contain additional deposits and information potential.

LA 127513 (Category 1)

Site Type: Artifact scatter
No. of Components: 2
Cultural Affiliation: Unknown Prehistoric/Historic
Land Status: Private
Elevation: 4480 feet above mean sea level

LA 127513 is a multi-component site including both prehistoric and historic materials. The site was originally recorded in 1999 by Eastern New Mexico University. The historic component is the dominant component and consists of a large historic artifact scatter located within the present town of Kenna. The dense concentration of historic and some relatively modern materials appears representative of a local dump associated with the occupation of Kenna between Statehood and WWII (A.D. 1912-1945). The lesser prehistoric component is a limited flaked lithic scatter composed of five non-diagnostic artifacts. The site appears to have been impacted by numerous land development activities including, but not limited to the construction of the highway, building demolition, and mechanical earth moving of the general site vicinity.

The site remains largely as it was originally defined in 1999. The site was originally assessed as "not sure" in terms of its eligibility to the National Register of Historic Places (HPD Log 59996). The present site update recommends the site as not eligible for inclusion to the National Register of Historic Places.

4.0 Environmental Consequences and Proposed Mitigation Measures

Under the No Action Alternative, Alternative A, the proposed powerline would not be constructed. There would be no new impacts from the installation process to the resources. The No Action Alternative would result in the continuation of the current land and resource uses in the project area and is used as the baseline for comparison of alternatives. No further analysis of this alternative will be made in this section.

Surface Disturbance from Alternatives B and C

Short-term impacts from surface disturbance are those which can be stabilized or mitigated rapidly (within 5 years). Long-term impacts are those that would substantially remain for more than 5 years.
No long-term impacts from surface disturbance are expected from the Proposed Action or alternatives. Only short-term surface disturbance from the powerline construction will occur. No new disturbance is expected from the physical presence of a new powerline, as the existing line has been in place since the 1960s.

Impacts on Individual Resources from Alternatives B and C

Descriptions of potential impacts on individual resources for action alternatives is presented in the following text. Also described are mitigation measures that could be incorporated by the BLM where appropriate. The same critical elements are analyzed below for Alternative B and Alternative C. However, some of the critical elements have different impacts and mitigation measures under Alternative C. These are discussed below.

4.1 Air Quality

Alternative B- Proposed Action

4.1.1 Direct and Indirect Impacts

Air quality would temporary be directly impacted with pollution from exhaust emissions and dust that would be caused by the service vehicles and auger used to construct the powerline. Dust dissemination would discontinue upon completion of the construction. Air pollution from the motorized equipment would discontinue at the completion of the pole installation phase of the operations. The winds that frequent the southeastern part of New Mexico generally disperse the odors and emissions. Other factors that currently affect air quality in the area include dust from livestock herding activities, dust from recreational use, and dust from use of roads for vehicular traffic.

4.1.2 Mitigation

No mitigation measures would be taken.

Alternative C- Alternate Time Period

4.1.3 Direct and Indirect Impacts

Impacts to Air Quality for Alternative B would be the same as for Alternative C.

4.1.4 Mitigation

No mitigation measures would be taken.

4.2 Invasive, Non-native Species

Alternative B- Proposed Action

4.2.1 Direct and Indirect Impacts

A stand of salt cedar is located in Kenna Draw just outside of the proposed project area. The specific location of the salt cedar stand is at the bottom of Kenna Draw where it crosses beneath U.S. 70. The proposed powerline would cross Kenna Draw above this stand of salt cedar, and no contact with these plants would take place. All work is proposed to take place outside of area inhabited by salt cedar. Avoidance of the musk thistle populations will also serve to prevent spread of seeds.

The construction of the powerline may unintentionally contribute to the establishment and spread of noxious weeds. Noxious weed seed could be carried to and from the project areas by construction equipment, the drilling rig and transport vehicles. The main mechanism for seed dispersion on the roads and well pads is by equipment and vehicles that were previously used and or driven across or through noxious weed infested areas. The potential for the dissemination of invasive and noxious weed seed may be elevated by the use of construction equipment typically contracted out to companies that may be from other geographic areas in the region. Washing and decontaminating the equipment prior to transporting onto and exiting the construction areas would minimize this impact.

Impacts by noxious weeds will be minimized due to requirements for the company to eradicate the weeds upon discovery. Multiple applications may be required to effectively control the identified populations.

4.2.2 Mitigation

The proposed action would be constructed in accordance with the Roswell Field Office Standard Stipulations for Overhead Electric Distribution Lines in the Roswell Field, BLM (Appendix B). In general, the holder shall be held responsible if noxious weeds become established within the area. Evaluation of growth of the noxious weeds shall be made upon discovery. Weed control will be required on the disturbed lands resulting from the construction process, and on adjacent lands affected by the establishment of weeds due to this action.

The holder shall insure that the equipment and or vehicles that will be used to construct, maintain and administer the access roads, and along the right-of-way are not polluted with invasive and noxious weed seeds. Transporting of invasive and noxious weed seeds could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to construction, maintenance and administration of the access roads, well pad, and resulting well.

The holder is responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods, which include following EPA and BLM requirements and policy.

Alternative C- Alternate Time Period

4.2.3 Direct and Indirect Impacts

No impacts from invasive or non-native species is expected, as in Alternative B.

4.2.4 Mitigation

The same mitigation measures as described for Alternative B would be necessary.

4.3 Threatened or Endangered Species

Alternative B- Proposed Action

4.3.1 Direct and Indirect Impacts

No threatened or endangered species have suitable habitat within the project area. No impacts would occur.

4.3.2 Mitigation

No mitigation measures would be necessary.

Alternative C- Alternate Time Period

4.3.3 Direct and Indirect Impacts

No threatened or endangered species have suitable habitat within the project area. No impacts would occur.
4.3.2 Mitigation

No mitigation measures would be necessary.

4.4 Soil

Alternative B- Proposed Action

4.4.1 Direct and Indirect Impacts

Minimal impacts to soil within the project corridor will occur during installation of the new powerline and removal of the existing one. The substratum soil may be exposed at a few very small points along the project corridor (< 0.05 acres in size). Direct impacts resulting from powerline construction and removal include compaction of soil and vegetation from service trucks, and removal of vegetation at isolated points every 300 feet where poles will be placed in auger holes. Indirect impacts of from soil compaction and exposure include susceptibility to wind and water erosion in small localized areas. However, the dominance of sandy soils within the project area contribute toward high percolation rates. Runoff from the dominant soil in the project area is low and hazard of water erosion is very low. The dominant soil is loamy fine sand

and fine sand, which contribute to low runoff rates and very low water erosion potential throughout the majority of the project area.

The overall hazard of soil blowing within these areas is slight, with the exception of Bippus and Spur soil where the hazard is high. However, this soil unit represents only 6 percent of the project area, and would be unlikely to be exposed by work activities. The very low acreage of soil that would be exposed during construction is expected to be benign, and local plants are anticipated to recolonize through natural dispersal.

4.4.2 Mitigation

No roads would be built within the project area, which would reduce the susceptibility of the work area to wind erosion.

Alternative C- Alternate Time Period

4.4.3 Direct and Indirect Impacts

The impacts to soils in Alternative C would be the same as in Alternative B.

4.4.4 Mitigation

The mitigation measures would be the same as in Alternative B.

4.5 Water Quality: Surface and Groundwater

Alternative B- Proposed Action

4.5.1 Direct and Indirect Impacts
Surface disturbance from installation of the new powerline and removal of the existing one would result in negligible impacts to surface water quality and groundwater quality. No non-point source pollution is expected from construction activities. Minimal increases in soil losses may occur at the localized sites where auger holes are bored for installation of poles.

The potential direct impacts that could occur due to construction are slight increases in surface water runoff and sedimentation at localized sites. The impacts are expected to be minimal enough such that no alterations to channel morphology and natural gully formation processes would occur. Direct impacts to surface water quality would be minor, short-term impacts which may occur during storm flow events. No impacts to groundwater resources are anticipated. Indirect impacts to water-quality related resources, such as fisheries, would not occur.

4.5.2 Mitigation

No roads would be built in the project area to minimize soil erosion and the potential effects on water quality.

Alternative C- Alternate Time Period

4.5.3 Direct and Indirect Impacts

The impacts from Alternative C would be the same as Alternative B.

4.5.4 Mitigation

4.6 Watershed - Hydrology

Alternative B- Proposed Action

4.6.1 Direct and Indirect Impacts

Construction and surface disturbance activities from the construction of the proposed powerline could result in short term alterations to the hydrologic regime. However, only one ephemeral stream flows through the project area, Kenna Draw. Soil compaction within and adjacent to Kenna Draw from service vehicles could increase peak flows by reducing infiltration. Direct impacts could, but would not likely include increased magnitude and volume of peak flows, which could lead to bank erosion, channel widening, downward incision, and disconnection from the floodplain. This could lead to indirect impacts such as reduced surface storage and groundwater recharge, resulting in reduced baseflow to perennial, ephemeral, and intermittent rivers and streams. However, the small scale of the project and level of soil disturbance expected would likely preclude the aforementioned impacts from occurring.

4.6.2 Mitigation

Service vehicles would cross Kenna Draw just above the project area where the slope is less than four percent. All work would be conducted out of and above Kenna Draw, preventing the chance of soil compaction and an altered hydrologic regime.

Alternative C- Alternate Time Period

4.6.3 Direct and Indirect Impacts

The hydrological impacts from Alternative C would be the same as Alternative B.

4.6.4 Mitigation

Mitigation measures would be the same as Alternative B.

4.7 Vegetation

Alternative B- Proposed Action

4.7.1 Direct and Indirect Impacts

Impacts to vegetation from the proposed construction would be minimal. No roads would be constructed; instead driving over vegetation would occur. Temporary compression of shrubs and minimal loss of herbaceous cover would occur from service vehicles during the installation of power poles. Compression from vehicle tires could rip out or injure vegetation in localized areas at 300 foot intervals where poles will be installed. Vegetation would be removed where auger holes are made to accommodate the poles. Most impacts would likely be to herbaceous cover from being driven over. However, the dominant grasses within the Shinnery Oak-Dune Community, which comprises the majority of the project corridor, are perennial bunchgrasses with well established root systems. It is expected that compression would at most, temporarily injure the plants for one growing season. Plants adjacent to the locally disturbed sites are

expected to recolonize by natural seed dispersal. No indirect impacts to vegetation from the proposed work are expected.

4.7.2 Mitigation

No roads would be constructed, and limited driving across vegetation would occur to minimize disturbance.

Alternative C- Alternate Time Period

4.7.3 Direct and Indirect Impacts

The impacts to vegetation from Alternative C would be the same as Alternative B.

4.7.4 Mitigation

The mitigation measures would be the same as Alternative B.

4.8 Livestock Grazing

Alternative B- Proposed Action

4.8.1 Direct and Indirect Impacts

Impacts to livestock grazing from the proposed work would be minimal. The direct impacts would be loss of forage and temporary displacement of stock to other areas during the construction activities. Negligible amounts of forage would be lost from the proposed project. Ranchers utilizing the pastures through which the project corridor passes during March through May could be indirectly impacted in the following way. Increased time could be needed to manage their herds during the construction process. However, the short duration of the proposed work and trace amounts of vegetation loss are expected to nullify any potential impacts.

4.8.2 Mitigation

No mitigation measures would be taken.

Alternative C- Alternate Time Period

4.8.3 Direct and Indirect Impacts

Impacts to livestock grazing from Alternative C would be the same as within Alternative B, with the exception of timing. Ranchers utilizing the pastures through which the project corridor passes, from June 16 to September 16, could be indirectly impacted in the following way. Increased time could be needed to manage their herds during the construction process. The direct impacts would be loss of forage and temporary displacement of stock to other areas during the construction activities. Negligible amounts of forage would be lost from the proposed project. However, the short duration of the proposed work and trace amounts of vegetation loss are expected to nullify any potential impacts.

4.8.4 Mitigation

No mitigation measures would be taken.

4.9 Wildlife

Alternative B- Proposed Action

4.9.1 Direct and Indirect Impacts

The Proposed Action would have the following direct and indirect impacts to wildlife in the project area. No direct, permanent loss of wildlife habitat would occur, however big game and avian species would likely avoid the area during operations from 9AM to 8PM. Losses to ground dwelling mammals and reptiles during operations are expected to be minimal as these animals would mostly relocate to adjacent habitat immediately outside of the project corridor. No birthing areas or critical seasonal habitats for big game are known to occur within the project area; no long-term adverse affects to population dynamics are expected.

No indirect effects on raptors, small mammals and lesser prairie chickens are expected from the presence of the new powerline, as the existing line would be removed at the end of construction. Further, the existing line has been in place since the 1960s and no new behavioral modifications by raptors or their prey are expected from presence of the new powerline. The new line would result in no net change in aerial obstructions or potential perch sites. No raptor nests were observed within the project corridor during site visits.

No fish habitat exists within the project area, and no impacts would be expected.

4.9.2 Mitigation

Under Alternative B, all work would be conducted between 9AM and 8PM. The operators would not work during peak activity periods for the majority of wildlife species, including breeding birds, from sunrise to 9AM. This would alleviate any potential disturbance from the noise of equipment or presence of people during this important daily time period. Although noise from powerline construction would be minimal, specifically less than construction of oil wells, work after 9AM would ensure breeding birds would not be impacted by noise. Work could take place at any time of the year, although the projected construction period would be from March to May of 2007.

Alternative C- Alternate Time Period

4.9.3 Direct and Indirect Impacts

The impacts to wildlife incurred from the Alternate Time Period Alternative are the same as the Proposed Alternative with the following exceptions. Construction would take place completely outside of the period of March 15 to June 15, 2007, the lesser prairie chicken breeding season. Work activities would take place at any time during the day. Direct impacts include a higher likelihood of wildlife encounters during the early morning hours of construction, especially for birds and big game. Potential disturbance from the noise of equipment or presence of people would be increased during early morning hours. Indirect impacts could be behavioral modifications by birds and big game to avoid the construction areas during all hours of daylight, when construction may occur.

4.9.4 Mitigation

No mitigation measures would be taken.

4.10 Special Status Species

Alternative B- Proposed Action

4.10.1 Direct and Indirect Impacts

Under this Proposed Action, the anticipated work period would extend from March 2007 through May 2007, with daily work activities conducted between 9AM and 8PM. No work would take place between 3:00 A.M. and 9:00 A.M, as stipulated in the Roswell Field Office (RFO) and Carlsbad Field Office (CFO) Interim Management Guidelines for the Shinnery Oak Sand Dune Habitat Complex (Department of Interior 2004). Impacts from the Proposed Action are described below.

Sand dune lizard
Sand dune lizards are not expected to incur any impacts from the proposed action. Although the general Shinnery Oak-Dune community is present, the specific habitat features typically associated with the presence of these lizards, dunal complexes with blowouts devoid of vegetation, are not present within the project corridor. Further, no sand dune lizards were detected during visits to the project site in early September of 2006.

Lesser prairie chicken
No direct or indirect impacts to lesser prairie chickens are expected under the Proposed Action. However, a slight possibility does exist for direct encounters with individual birds crossing U.S. 70 during the daily work period, 9AM to 8PM, a short-term impact. The peak chicken activity period occurs before work would begin each day under this alternative, and minimal chance encounters if any, would be expected. No impacts on breeding or nesting activities are expected from the Proposed Action.

No new loss of habitat, an indirect impact, would occur from the construction of a powerline, as the existing line has been in place since the 1960s. Any patterns of lesser prairie chicken behavioral avoidance (e.g. avoidance of areas around the powerline and poles due to potential predation from raptors), if existent, are thought to have been assumed some time in the past. Therefore, replacement of the existing line is not expected to modify behavior in the long term. Further, construction activities would produce negligible noise, and less than that of routine vehicular travel along U.S. 70. No indirect impacts on population dynamics would be incurred from the Proposed Action.

4.10.2 Mitigation

Sand dune lizard
No mitigation measures would be taken; no lizards, or specific, necessary habitat features are present within the project corridor.

Lesser prairie chicken
The operator recognizes the importance of protecting special status species such as the lesser prairie chicken, and has therefore agreed to restrict work activities to periods specified in the Interim Guidelines. Under Alternative B, all work would be conducted between 9AM and 8PM. The operators would not work during the peak activity period for lesser prairie chickens, from sunrise to 9AM, to lessen the probability of a chance encounter. This would alleviate any potential disturbance from the noise of equipment or presence of people during this important daily time period.

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Alternative C- Alternate Time Period

4.10.3 Direct and Indirect Impacts

Under the Alternate Time Period Alternative, all construction activities would be the same as under the Proposed Action with the exception of timing. Construction would take place completely outside of the period of March 15 to June 15, 2007. Daily work activities could extend from sunrise to sunset.

Sand dune lizard
No impacts to sand dune lizards would be expected from Alternative C, as none of the specific habitat features typically associated with these lizards are present within the project area.

Lesser prairie chicken
No direct or indirect impacts to lesser prairie chickens are expected under Alternative C. However, a slight possibility does exist for direct encounters with individual birds crossing U.S. 70 during all daylight hours, when work would be permitted under this alternative. No impacts on breeding or nesting activities are expected from the Proposed Action.

4.10.4 Mitigation

Sand dune lizard
No mitigation measures would be taken as no lizards, or specific, necessary habitat features are present within the project corridor.

Lesser prairie chicken
No definitive mitigation measures could be taken under this alternative. The operators may need to work during the early morning hours under this alternative, to keep up with the RCEC installation schedule.

4.11 Visual Resources

Alternative B- Proposed Action

4.11.1 Direct and Indirect Impacts

No new direct or indirect impacts would occur from the proposed action. No net changes to visual resources would occur. The existing infrastructure would be replaced with new infrastructure of equal size and dimensions. The proposed action would locate the new powerline 15 feet to the north of the existing line. New poles would be installed. The new poles would stand no higher in elevation than the existing poles.

4.11.2 Mitigation

All existing powerline infrastructure would be removed after the new powerline has been constructed.

Alternative C- Alternate Time Period

4.11.3 Direct and Indirect Impacts

The impacts on Visual Resources from Alternative C would be the same as Alternative B.

4.11.4 Mitigation

Mitigation measures would be the same for Alternative C as Alternative B.

4.12 Cultural Resources

Alternative B- Proposed Action

4.12.1 Direct and Indirect Impacts

Cultural resource materials were identified during the course of this survey (six cultural resource sites and eleven isolated manifestations). Four sites have or are presently being identified as Category One sites that are recommended as not eligible for inclusion to the National Register of Historic Places. These include LA 127498, LA 127510, LA 127511, and LA 127513. Although these sites will be impacted by the present project undertaking, it is believed that the present and previous recordings have sufficiently documented these resources and that they are not likely to yield any significant settlement, subsistence, or chronological information towards our present understanding of the prehistoric or historic periods of the region. Therefore, no additional cultural resource investigations are recommended at this time. Two sites are presently being identified as Category Two sites that are recommended as eligible for inclusion to the National Register of Historic Places (HPD Log 59996). These include LA 127508 and LA 127509. These two sites would be impacted by the proposed project undertaking.

4.12.2 Mitigation

LA 127508 shall be avoided by surface disturbing activities. No vehicular traffic shall be allowed through LA 127508. Construction materials shall be hand carried through this site. The site boundary of LA 127508 shall be completely spanned by the new power line construction to avoid any adverse impacts.

LA 127509 shall be avoided by rerouting the proposed new power line construction to the northwest, away from the defined site boundary. No vehicular traffic shall be allowed through LA 127509. The existing power line within the site boundary of LA 127509 shall be deconstructed via removing the existing wire and cutting the power poles with chainsaws and removing the debris manually.

Table 4.12.3 Management Summary Chart of Resources Identified.

Site No. (LA/Field)	Site Description	Impacts from Undertaking	Mitigation Recommendations
LA 127498	Small, low density lithic and ceramic scatter.	The site will be impacted by the proposed project undertaking	The site has previously been determined not eligible for inclusion to the NRHP. No further cultural resource treatment is recommended at this time.
LA 127508	Historic residence and artifact scatter.	The site will be impacted by the proposed project undertaking	LA 127508 shall be avoided by surface disturbing activities. No vehicular traffic shall be allowed through LA 127508. Construction materials shall be hand carried through this site. The site boundary of LA 127508 shall be completely spanned by the new power line construction to avoid any adverse impacts.
LA 127509	Historic residence and artifact scatter and a prehistoric artifact scatter.	The site will be impacted by the proposed project undertaking	LA 127509 shall be avoided by rerouting the proposed new power line construction to the northwest, away from the defined site boundary. No vehicular traffic shall be allowed through LA 127509. The existing power line within the site boundary of LA 127509 shall be deconstructed via removing the existing wire and cutting the power poles with chainsaws and removing the

			debris manually.
LA 127510	Small prehistoric artifact scatter.	The site will be impacted by the proposed project undertaking	The site has previously been determined not eligible for inclusion to the NRHP. No further cultural resource treatment is recommended at this time.
LA 127511	Prehistoric and historic artifact scatter.	The site will be impacted by the proposed project undertaking	The site has previously been determined "not sure" in terms of its eligibility for inclusion to the NRHP. The present recording recommends the site as not eligible. No further cultural resource treatment is recommended at this time.
LA 127513	Historic artifact scatter.	The site will be impacted by the proposed project undertaking	The site has previously been determined not eligible for inclusion to the NRHP. No further cultural resource treatment is recommended at this time.

Alternative C- Alternate Time Period

4.12.3 Direct and Indirect Impacts

Impacts to Cultural Resources under Alternative C would be the same as Alternative B.

4.12.4 Mitigation

Mitigation measures under Alternative C would be the same as Alternative B.

4.13 Cumulative Impacts

The cumulative impact as defined by the Council on Environmental Quality (40 CFR 1508.7) is the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. No significant cumulative impacts are expected from the proposed action. The area of the proposed action has had a

powerline in place since the 1960s. The surface disturbance from the original installation of the powerline has not changed over time. Cumulative impacts from construction of the new line include negligible surface disturbance at 300 feet intervals where power poles would be placed, and potential encounters with wildlife during construction activities. There would be a short period (< 3 months) during which 2 powerlines would potentially be up concurrently, prior to removal of the existing line. However, no cumulative effects to the resources are expected during this time period. Future maintenance of the powerline may require presence of personnel and service vehicles for short periods of time, although these maintenance periods are assumed to be negligible. No cumulative long-term effects are expected from the presence of the powerline in the future. No new behavioral modifications by raptors or their prey are expected from the Proposed Action. Impacts to Cultural Resources are described in section 4.12, and include cumulative impacts and mitigation measures. Preserving as much land as possible and applying appropriate mitigation measures will alleviate the cumulative impacts.

5.0 Consultation/Coordination

This section includes individuals or organizations from the public and its' users, the interdisciplinary team, and permittees that were contacted during the development of this document.

Table 5.1 Summary of Contacts Made During Preparation of Document

ID Team Member	Title	Organization	Present at Onsite?
Michael McGee	Hydrologist	RFO	No
Joseph Navarro	Range Mgmt. Spec.	RFO	No
Melvin Moe	Wildlife Biologist	RFO	No
Pat Flanary	Archaeologist	RFO	No
John Spain	Range Mgmt. Spec	RFO	No

Add:

Irene M. Gonzales	**Realty Specialist**	**RFO**	**No**
Howard Parman-Planning & Environmental Coordinator		**RFO**	**No**

6.0 References

Brown, D. E. and C.H. Lowe. 1980. Biotic Communities of the Southwest. USDA Forest Service General Technical Report: RM-78. Rocky Mountain Forest and Range Experiment Station. Fort Collins, Colorado.

Burleson, R. 2006. Class III Cultural Resource Survey of 13.48 Linear Miles from Kenna to Boaz, Chaves and Roosevelt County, NM.

Degenhardt, Painter, and Price. 1996. Amphibians and Reptiles of New Mexico. UNM Press, Albuquerque, NM. 431 pp.

Esgoscue, H. J. 1979. Vulpes velox. Mammalian Species. 122-1-5.

Findley, J.S., A.H. Harris, D.E. Wilson, and C. Jones. 1975. Mammals of New Mexico. University of New Mexico Press, Albuquerque, New Mexico. xxii + 360 pp.

Frey, J. 1999. Forms for mammal associations with GAP vegetation community classification.

Hubbard, J.P. 1978. Revised checklist of the birds of New Mexico. New Mexico Ornithological Society Publication No. 6.

The New Mexico LPC/ SDL Working Group. 2005. Collaborative Conservation Strategies for the Lesser Prairie Chicken and Sand Dune Lizard.

New Mexico Rare Plant Technical Council. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. http://nmrareplants.unm.edu (Latest update: 18 January 2006).

Peterson, Roger S. and Chad S. Boyd. 1998. Ecology and Management of Sand Shinnery Communities: A Literature Review. Forest Service, Rocky Mountain Research Station.

Stahlecker, Dale W. September, 1995. Eagle Ecological Services.

U.S.Department of Agriculture, Natural Resource Conservation Service. 2006. Soil Surveys of Chaves County, New Mexico, Northern Part, and Roosevelt County, New Mexico.

U.S. Department of the interior, Bureau of Land Management. 1979. Snake River Birds of Prey Special Research Report. 142 pages.

U.S. Department of the Interior, Bureau of Land Management. January 1997, *Proposed Resource Management Plan and Final Environmental Impact Statement*. Roswell, New Mexico.

U.S. Department of the Interior, Bureau of Land Management. October 10,1997, *Resource Management Plan Record of Decision*. Roswell, New Mexico.

U.S. Department of the Interior, Bureau of Land Management and Office of the Solicitor (editors). 2001. The Federal Land Policy and Management Act, as amended. Public Law 94-579.

U.S. Department of the Interior, Bureau of Land Management. 2004. Roswell Field Office (RFO) and Carlsbad Field Office (CFO) Interim Management Guidelines for the Shinnery Oak Sand Dune Habitat Complex.

U.S. Department of the Interior, U.S. Fish and Wildlife Service. 1989. Bitter Lake National Wildlife Refuge- Bird List. Revised April 1989.

Taylor, M.A. 1980. Status , Ecology, and Management of the Lesser Prairie Chicken. U.S. Department of Agriculture, Forest Service General Technical Report: RM-77. 15 pp.

6.1.Authorities

Code of Federal Regulations (CFR)

40 CFR All Parts and Sections inclusive Protection of Environment, Revised as of July 1, 2001.
43 CFR, All Parts and Sections inclusive - Public Lands: Interior. Revised as of October 1, 2000.

7.0 Appendix A

Maps

Map 1. Vicinity Map
Map 2. Northern Portion of Project Area
Map 3. Middle Portion of Project Area
Map 4. Southern Portion of Project Area

8.0 Appendix B

Standard Stipulations for Overhead Electric Distribution Lines in the Roswell Field, BLM

DECISION RECORD AND FINDING OF NO SIGNIFICANT IMPACT
EA# NM-510-2007-0113
Right-of-Way NM 114124

Recommendation: I recommend that the proposed action by Roosevelt County Electric Coop., Inc. for installation of an overhead electric distribution line be approved as mitigated, subject to the Standard Stipulations for Overhead Electric Distribution Lines in the Roswell District, BLM. This action will affect the following public land:

New Mexico Principal Meridian

Authority of this action is the Federal Land Policy and Management Act of 1976.

T. 6 S., R. 29 E., NMPM, Chaves County
Section 25: S1/2SE1/4;
T. 6 S., R. 30 E. NMPM, Chaves
Section 11: S1/2SE1/4;
Section 12: SE1/4NW1//4, NW1/4SW1/4;
Section 14: N1/2 NW1/4, SW1/4NW1/4;
Section 15: NE1/4NE1/4, S1/2NE1/4,N1/2SW1/4;
Section 20: SW1/4SW1/4;
Section 21: NW1/4NE1/4, NE1/4NW1/4, S1/2NW1/4;
Section 29: NW1/4NW1/4;
Section 30: N1/2SW1/4.

Rationale for recommendation: The proposed action would not result in any undue or unnecessary environmental degradation. Portions of the subject land and adjacent land have been used for similar purposes and all present and potential uses and users have been considered.

Prepared by:
/s/Irene M. Gonzales 1/11/07
Irene M. Gonzales, Realty Specialist Date

Reviewed by:

/s/Howard Parman 1/11/07
Howard Parman, Planning & Environmental Coordinator Date

I Concurr:

/s/Pat Flanary 1/11/07
Pat Flanary, Archaeologist Date

Decision: The recommendation and rationale are adopted as my decision.

Finding of No Significant Impact: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts are not expected to be significant and an environmental impact statement is not required.

Compliance and Monitoring

The construction phase of this proposed action and subsequent operational phases will be monitored as per regulation.

/s/John S. Simitz 1/11/07

For Larry D. Bray Date
Assistant Field Manager
Lands and Minerals

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES
IN THE ROSWELL FIELD, BLM

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public land under this authorization.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the Holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the pipeline route or on facilities authorized. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way Holder's activity on the pipeline). This agreement applies without regard to whether a release is caused by the Holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged, impacting Federal land, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the Holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal land, or to repair all damages to Federal land resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the Holder. Such action by the Authorized Officer shall not relieve the Holder of any liability or responsibility.

5. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the Holder, or any person working on the Holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

6. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above

are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

7. The holder shall be responsible for weed control on disturbed areas within the limits of the site. The holder is responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods, which include following EPA and BLM requirements and policy.

8. The holder shall be responsible for maintaining the site in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment.

9. The holder shall conduct all activities associated with the construction, operation and termination of the powerline within the authorized limits.

10. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

11. Power lines shall be constructed to standards outlined in "Suggested Practices for Raptor Protection on Powerlines," Raptor Research Foundation, Inc., 1981, unless otherwise agreed to by the Authorized Officer in writing. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "eagle safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modifications or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modification and/or additions shall be made by the holder without liability or expense to the United States.

12. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair impacted improvements to at least their former state. The holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence will be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

13. Construction holes left open over night shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.

14. The holder shall evenly spread the excess soil excavated from pole holes in the immediate vicinity of the pole structure.

15. The BLM serial number assigned to this right-of-way grant shall be posted in a permanent, conspicuous manner, and be maintained in a legible condition for the term of the right-of-way at all major road crossings and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

16. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

17. All surface structures (poles, lines, transformers, etc.) shall be removed within 90 days of abandonment, relinquishment, or termination of use of the serviced facilities or within 90 days of abandonment, relinquishment, or termination of this grant, whichever comes first. This will not apply where the power line extends to serve an active, adjoining facility or facilities.

18. Special stipulations:

LA 127508 shall be avoided by surface disturbing activities. No vehicular traffic shall be allowed through LA 127508. Construction materials shall be hand carried through this site. The site boundary of LA 127508 shall be completely spanned by the new power line construction to avoid any adverse impacts.

LA 127509 shall be avoided by rerouting the proposed new power line construction to the northwest, 50 feet away from the defined site boundary as depicted on the following page 4 of 4 of the Roswell Standard Stipulations for Overhead Power Lines. No vehicular traffic shall be allowed through LA 127509. The existing power line within the site boundary of LA 127509 shall be deconstructed via removing the existing wire and cutting the power poles with chainsaws and removing the debris manually.

The right-of-way holder shall contact Irene Gonzales five days prior to construction (505-627-0272).